

INDULSKA, Maria

Attempted evaluation of the erythrocytic system in cotton workers. Pol. tyg. lek. 19 no. 49:1878-1881 7 D '64

1. Z III Kliniki Chorob Wewnętrznych Wojskowej Akademii Medycznej w Łodzi (kierownik: prof. dr. A. Himmel).

TRIEFF, Herman; HIMMEL, Andrzej; INDULSKI, Janusz

Diagnostic tests in precancerous conditions of the stomach.
Pol. tyg. lek. 19 no.2:49-51 Ja '64.

1. Z III Kliniki Chorob Wewnętrznych Wojskowej Akademii Medycznej
w Łodzi (kierownik: prof. dr med. Andrzej Himmel).

BUTAREWICZ, M. INDULSKI, Janusz

Organization and results of prophylactic gynecological examinations of female industrial workers in Lodz in 1961. Zdrow. publiczne no.6:195-203 Je '65.

1. Z Zakladu Organizacji Ochrony Zdrowia Akademii Medycznej w Lodzi (Kierownik: dr. med. J. Indulski).

INDULSKI, Janusz, dr. med.; HANKE, Janusz.

Role of the physician in furthering the efficiency of analytic laboratories. Wiad. lek. 18 no.8:667-673 15 Ap '65.

1. Z Zakladu Organizacji Ochrony Zdrowia Akademii Medycznej w Lodzi (Kierownik: dr. med. J. Indulski).

INDURSKIY, I.M., inzh.

Improving a dynamoelectric amplifier. Bum.prom. 33 no.10:
20-22 0 '58. (MIRA 11:11)

1. Balakhminskiy tsellyulosno-bumazhnnyy kombinat.
(Electric generators)

INDURSKIY, I.M.

Static controlling apparatus for a multimotor electric drive
of a papermaking machine. Bum.prom. 37 no.1:21+22 Ja '62.
(MIRA 15:1)

1. Latgiprom.

(Papermaking machinery)

INDURSKIY, S., redaktor.

[More production from a unit of equipment; collection of articles on the utilization of productive forces at textile enterprises in Moscow Province] Bol'she produktii s edinitay oborudovaniia; sbornik statei ob opyte ispol'zovaniia proizvodstvennykh moshchnostei na predpriatiakh tekstil'noi promyshlennosti Moskovskoi oblasti. [Moskva] Moskovskii rabochii, 1953. 55 p. (MLRA 6:10)

(Moscow Province--Textile industry) (Textile industry--Moscow Province)

BELANOV, V.M.; INDUTNYY, V.F.

Characteristics of the physical properties of crystalline rocks
in the northwestern part of the Ukrainian Shield. Geofiz. sbor.
no.9:30-38 '64. (MIRA 18:6)

1. Institut geofiziki AN UkrSSR.

MYLKO, Sergey Nesterovich, kand. tekhn. nauk; GONCHAROV, Ivan
Nikolayevich, kand. tekhn. nauk; TARASENKO, Ivan Ivanovich,
inzh.; KIMLAT, Zyunya Aronovich, inzh.; ~~INDUTNYI, Yevgeniy~~
Vasil'yevich, inzh.; DOROFEYEV, Yuriy Grigor'yevich, kand.
~~tekhn. nauk~~; CHUKMASOV, S.F., doktor tekhn.nauk, ~~retsensent~~;
KUDELYA, F.Ya., inzh., ~~retsensent~~; TANCHAROVA, V.P., red. inzh.
va; MATUSEVICH, S.M., tekhn. red.

[Uses for scrap metal] Ispol'zovanie metallicheskoj strushki.
Kiev, Gostekhzdat USSR, 1963. 142 p. (MIRA 16:12)
(Scrap metals)

ENDUTNEY, Ye.V., ¹ ² ³ ⁴ ⁵ ⁶ ⁷ ⁸ ⁹ ¹⁰ ¹¹ ¹² ¹³ ¹⁴ ¹⁵ ¹⁶ ¹⁷ ¹⁸ ¹⁹ ²⁰ ²¹ ²² ²³ ²⁴ ²⁵ ²⁶ ²⁷ ²⁸ ²⁹ ³⁰ ³¹ ³² ³³ ³⁴ ³⁵ ³⁶ ³⁷ ³⁸ ³⁹ ⁴⁰ ⁴¹ ⁴² ⁴³ ⁴⁴ ⁴⁵ ⁴⁶ ⁴⁷ ⁴⁸ ⁴⁹ ⁵⁰ ⁵¹ ⁵² ⁵³ ⁵⁴ ⁵⁵ ⁵⁶ ⁵⁷ ⁵⁸ ⁵⁹ ⁶⁰ ⁶¹ ⁶² ⁶³ ⁶⁴ ⁶⁵ ⁶⁶ ⁶⁷ ⁶⁸ ⁶⁹ ⁷⁰ ⁷¹ ⁷² ⁷³ ⁷⁴ ⁷⁵ ⁷⁶ ⁷⁷ ⁷⁸ ⁷⁹ ⁸⁰ ⁸¹ ⁸² ⁸³ ⁸⁴ ⁸⁵ ⁸⁶ ⁸⁷ ⁸⁸ ⁸⁹ ⁹⁰ ⁹¹ ⁹² ⁹³ ⁹⁴ ⁹⁵ ⁹⁶ ⁹⁷ ⁹⁸ ⁹⁹ ¹⁰⁰ ¹⁰¹ ¹⁰² ¹⁰³ ¹⁰⁴ ¹⁰⁵ ¹⁰⁶ ¹⁰⁷ ¹⁰⁸ ¹⁰⁹ ¹¹⁰ ¹¹¹ ¹¹² ¹¹³ ¹¹⁴ ¹¹⁵ ¹¹⁶ ¹¹⁷ ¹¹⁸ ¹¹⁹ ¹²⁰ ¹²¹ ¹²² ¹²³ ¹²⁴ ¹²⁵ ¹²⁶ ¹²⁷ ¹²⁸ ¹²⁹ ¹³⁰ ¹³¹ ¹³² ¹³³ ¹³⁴ ¹³⁵ ¹³⁶ ¹³⁷ ¹³⁸ ¹³⁹ ¹⁴⁰ ¹⁴¹ ¹⁴² ¹⁴³ ¹⁴⁴ ¹⁴⁵ ¹⁴⁶ ¹⁴⁷ ¹⁴⁸ ¹⁴⁹ ¹⁵⁰ ¹⁵¹ ¹⁵² ¹⁵³ ¹⁵⁴ ¹⁵⁵ ¹⁵⁶ ¹⁵⁷ ¹⁵⁸ ¹⁵⁹ ¹⁶⁰ ¹⁶¹ ¹⁶² ¹⁶³ ¹⁶⁴ ¹⁶⁵ ¹⁶⁶ ¹⁶⁷ ¹⁶⁸ ¹⁶⁹ ¹⁷⁰ ¹⁷¹ ¹⁷² ¹⁷³ ¹⁷⁴ ¹⁷⁵ ¹⁷⁶ ¹⁷⁷ ¹⁷⁸ ¹⁷⁹ ¹⁸⁰ ¹⁸¹ ¹⁸² ¹⁸³ ¹⁸⁴ ¹⁸⁵ ¹⁸⁶ ¹⁸⁷ ¹⁸⁸ ¹⁸⁹ ¹⁹⁰ ¹⁹¹ ¹⁹² ¹⁹³ ¹⁹⁴ ¹⁹⁵ ¹⁹⁶ ¹⁹⁷ ¹⁹⁸ ¹⁹⁹ ²⁰⁰ ²⁰¹ ²⁰² ²⁰³ ²⁰⁴ ²⁰⁵ ²⁰⁶ ²⁰⁷ ²⁰⁸ ²⁰⁹ ²¹⁰ ²¹¹ ²¹² ²¹³ ²¹⁴ ²¹⁵ ²¹⁶ ²¹⁷ ²¹⁸ ²¹⁹ ²²⁰ ²²¹ ²²² ²²³ ²²⁴ ²²⁵ ²²⁶ ²²⁷ ²²⁸ ²²⁹ ²³⁰ ²³¹ ²³² ²³³ ²³⁴ ²³⁵ ²³⁶ ²³⁷ ²³⁸ ²³⁹ ²⁴⁰ ²⁴¹ ²⁴² ²⁴³ ²⁴⁴ ²⁴⁵ ²⁴⁶ ²⁴⁷ ²⁴⁸ ²⁴⁹ ²⁵⁰ ²⁵¹ ²⁵² ²⁵³ ²⁵⁴ ²⁵⁵ ²⁵⁶ ²⁵⁷ ²⁵⁸ ²⁵⁹ ²⁶⁰ ²⁶¹ ²⁶² ²⁶³ ²⁶⁴ ²⁶⁵ ²⁶⁶ ²⁶⁷ ²⁶⁸ ²⁶⁹ ²⁷⁰ ²⁷¹ ²⁷² ²⁷³ 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INDYCHENKO, N.I.; ZYABLITSKY, I.V.; TIMOSHENKO, N.M.; BATSHENKO, E.P.;
VIZHLYAK, V.G.; CHALYUK, S.M.; VALOSHINA, G.G.

Popular textbook on electric centralization ("Electric centralization of switches and signals" by A.A. Kazakov. Reviewed by N.I. Indychenko and others). Avtom., telem. i svyaz' 2 no. 7:48 J1 '58.
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1. Rabotniki Kiyevskoy distantzii signalizatsii i svyazi Yugo-Zapadnoy dorogi.

(Railroads--Signaling--Block system)
(Kazakov, A.A.)

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[Contractual relations of machine-tractor stations with
collective farms] Dohovirni vidnosyny MTS z kolhospamy. Kyiv, 1957.
31 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh
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Work for the economy of fuel and electric power in thermal electric power plants in the Ministry of Power Engineering and Electrification of the Ukrainian S.S.R. Energ. i elektrotekh. prom. no.4:70-71 O-D '64. (MIRA 18:3)

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Power unit with 800 thousand kw. rating. Energ. i elektrotekh.
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The problem of the importance of permanent triangulation towers in topography.

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SO: Monthly Index of East European Accessions (MEEI) Vol. 6, No. 11, November 1957

POLAND

MIKLASZEWSKA, Jadwiga, INDYKOWA, Maria, and ORZECOWSKA, Krystyna, Division of Internal Diseases (Oddzial Wewnetrzny) Hospital (Szpital) im. Stefana Zeromskiego in Krakow-Nowa Huta (Director: Docent, Dr. J. MIKLASZEWSKA)

"A Reticulum Cell Sarcoma with Symptoms of Hypersplenism and Panagglutination."

Warsaw-Krakow, Przegląd Lekarski, Vol 19, Ser II, No 3, [24 Mar] 63, pp 189-191.

Abstract: [Authors' English summary] A description is given of a reticulum cell sarcoma in a 27-year old single woman. The disease took the very rarely encountered form of splenomegaly, with enlargement of only one of the peripheral lymph nodes. Besides hemolytic anemia and the hemorrhagic diathesis, the patient also exhibited panagglutination, a positive Coombs reaction, and a moderate degree of beta hyperglobulinaemia. The ten references contain two each French and English, and the others Polish.

1/1

INDYUKOV, N.M.																							
PROCESSING AND PROPERTIES INDEX																							
<p>Thermal decomposition of methane to carbon black. N. M. Indukov and T. V. Frolova. <i>Carachov and Rural</i> (U. S. S. R.) 1960, No. 2, 37-44.—The natural gas (Baku region) gas of the compn. CH_4 8, CH_2 69.98, C_2H_6 + C_3H_8 0.7, C_4H_{10} 0.35, higher unsatd. hydrocarbons 1.08%, sp. gr. 0.672, was subjected to thermal decompos. at 1000-1200° and velocity of gas feed 6, 18, 30 and 60 l./hr. The optimum temp. for CH_4 pyrolysis was 1200° and the feed 30 l./hr. (time of contact 2 sec.); there was yielded 73.5% (of the C in decompos. CH_4) of C black. The C black obtained was dark gray, and contained ash 0.08% and volatile matter 5.6%. The gas mixt., after thermal treatment, contained up to 94.7% H_2. Sixteen references. A. Pestoff</p>																							
ASB-51A METALLURGICAL LITERATURE CLASSIFICATION																							
<table border="1"> <tr> <th>SEARCHED</th> <th>INDEXED</th> <th>SERIALIZED</th> <th>FILED</th> <th>DATE</th> <th>BY</th> <th>REMARKS</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>										SEARCHED	INDEXED	SERIALIZED	FILED	DATE	BY	REMARKS							
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<p>Decomposition of green oil and oily tar to produce carbon black. N. M. Indukov. <i>Caoutchouc and Rubber</i> (U. S. S. R.) 1968, 10: 3, 11-16. The green oil (by-product in the manufact. of benzene, toluene and xylene) and oily tar were decomposed at 800° in the presence of air and without air in an Fe retort. The yield of C black was, from green oil 27.7%, from tar 23%. The C black obtained contained 4% water, and 4-4.7% volatile matter. Seven references. A. Petrov</p>																									
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<p>1ST AND 2ND GROUPS</p>													<p>1ST AND 2ND GROUPS</p>												

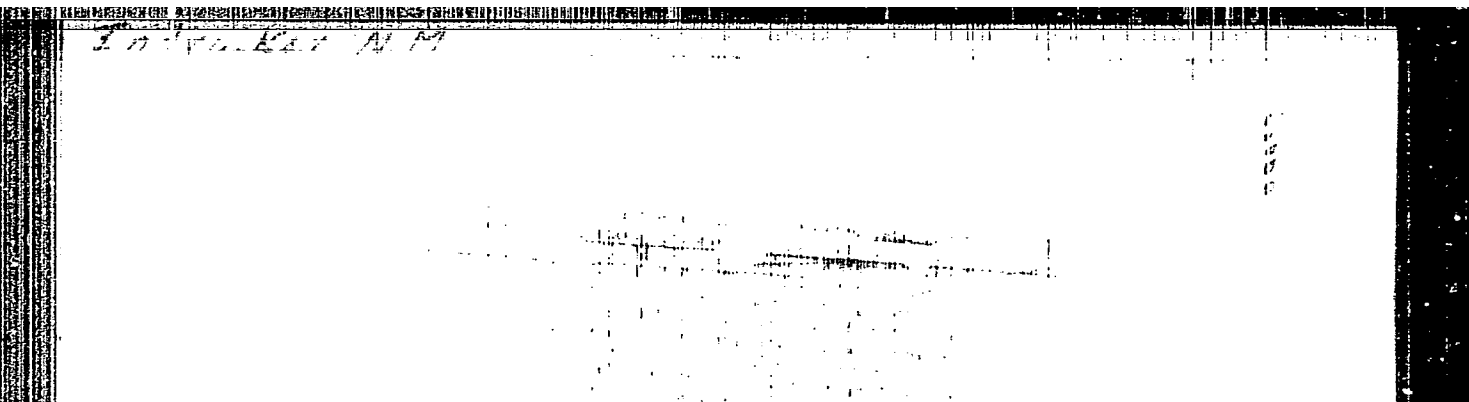
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<p>Obtaining carbon black by burning the vapor mixture of middle oil and naphthalene under a metallic surface. N. M. Indyukov, T. V. Prokof'eva and M. A. Lempert. <i>Caoutchouc and Rubber</i> (U. S. S. R.) 1938, No. 4, 32-4. The mist. of middle oil (d₄ 0.8947, flash point 59°, b. p. 156°) with 9.15 or 50% of C₁₀H₈ (m, 78-9°) was vaporized at 230-30° and then burnt in a special app. At the rate of feed of 50 g./hr. and 15% C₁₀H₈, the yield of C black was 20.1%; at the rate of 70 g./hr. and 50% of C₁₀H₈, the yield was 10.3%.</p> <p>A. Penttil</p>																			
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<p>Carbon black from methane gas. N. M. Indukov, T. V. Prokof'eva and M. A. Lempert. <i>Condition and Rubber (U. S. S. R.)</i> 1969, No. 6, 82-8. Natural gas c. contg. 90-92% CH₄ and 8-10% CO₂ was subjected to in- complete combustion in a special "Buller" installation. The pressure of the gas was 5 mm. of water and the yield of C black was 3.1% of the C content. Preheating the gas up to 450° did not improve the yield. The gas black produced was of a very high quality. Seven references. A. Pestoff</p>									
<p>ASB-55A METALLURGICAL LITERATURE CLASSIFICATION</p>									
<p>FROM SYNTHESE</p>									
<p>FROM QUALITY</p>									

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<p>Manufacture of carbon black in a pilot plant by thermal decomposition of methane. N. M. Indukov, T. V. Prokof'eva and M. A. Lempert. <i>Caoutchouc et Rubber</i> (U.S.S.R.) 1938, No. 7, 36-44. Details (with drawings) of the process of mfg. C blacks: Thermax (KC₁) and P-33 (KC₂) from CH₄, with the yield of av. 40% of the C in the gas, are described. The natural gas (from Baku region), contg. CO₂ 0.4-7, C₂H₆ 0-0.8, O₂ 0-0.6 and CH₄ higher hydrocarbons 92-98%, which was fed at a velocity of 5.6-46.3 cu. m./hr. was decompd. at 1100-1300° in a brick-lined and brick-filled generator, from which the decompd. gas passed the first cooler, where the temp. was reduced to 200-250° and 5% of C black was deposited, then sec. cooler, where the temp. dropped to</p>		<p>70-80° and 10-15% C black; was deposited, and afterward the gas passed through a specially constructed filter. This filter has 3 bags, of fine linen, depositing the C black on the outside surface of the bag. The deposit was shaken down into a lower conical part of the filter chamber. The KC₁ was obtained by decompg. natural gas directly. With KC₂, the natural gas was preliminarily mixed with the waste gases and afterward fed to a generator. The optimum yield of C black, 64% of C in the gas, for KC₁ was obtained at 1250-1150° and 20 cu. m./hr. m./hr. and 62.8% for KC₂ at 1200-1100°, was of the waste gas, with KC₁ at 1200-1100°, was of the following compn.: CO₂ 0-0.3, C₂H₆ 0-0.2, O₂ 0-1.2, CO 3.8-12.8 and H₂ 75.0-82.3%. The C black obtained had H₂O up to 1.3%, ash 0.8% and sometimes higher, comprising rust from coolers and filter chamber, volatile matter up to 1.80%, oversize on the standard screening tests less than 0.8%, the vol. in dry condition for KC₁ 1.5 and for KC₂ 0 cc., and in C₂H₄ (Galena) 2.5 and 15 cc., resp. The results, in graphs, are given for the series of tests, made to compare the behavior of different proportions (20, 40, 60, 80 and 100% by wt. of the rubber) of KC₁, KC₂, and Thermax in vulcanizates. The elasticity and the resistance to wear off of the vulcanizates with KC₁ and KC₂ are lower than those with Thermax; the tensile strength, hardness, modulus at 200% and plasticity are of the same values, as those with the Thermax. Twenty-seven references.</p>	
<p>ASS-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>		<p>6-27-42-730737</p>	
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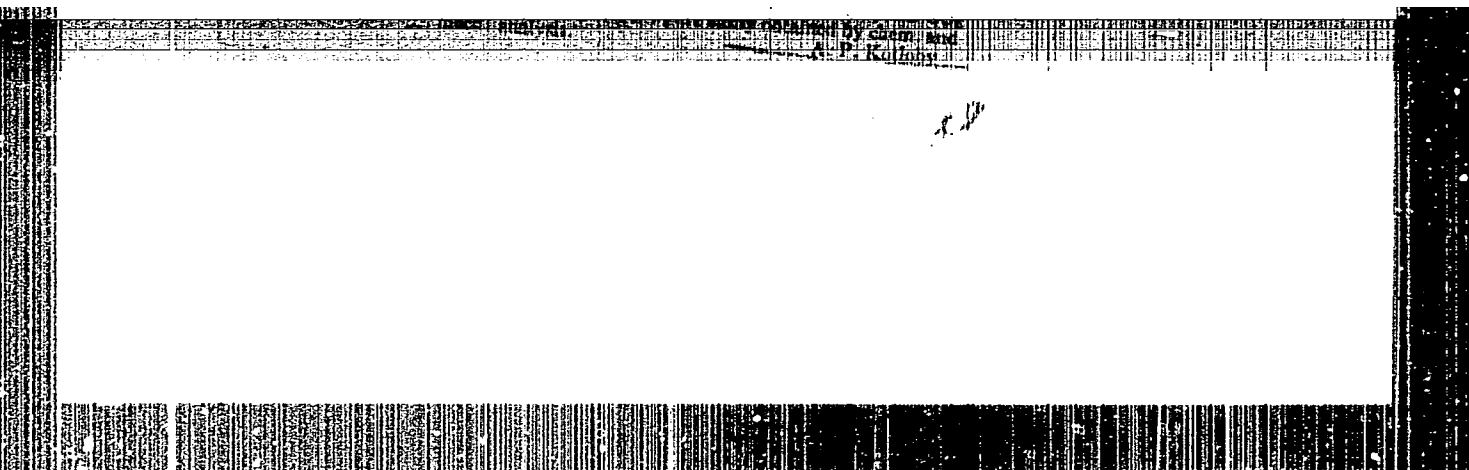


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Means for increasing the yield of the light-colored oil products and the lowering of technical losses in atmospheric and vacuum installations. Khim.i tekhn. no. 11:26-29 N '56. (MIRA 9:11)

**1. Azerbaydzhanskiy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti imeni Kuybysheva.
(Petroleum--Refining)**

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Study of a pseudoliquidised layer of powdered coke and an
aluminosilicate catalyst. Azerb.neft.khoz.36 no.2:27-31 F
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(Coke) (Aluminosilicates)

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DADASHEV, Khalyg Kadirovich; GRIGORYAN, Emma Vasil'yevna; AGAMIROVA, Sagra
Ismail; kysy; ~~INDYUKOV, N.M.~~ redaktor; AL'TMAN, T.B., redaktor izdatel'stva

[Recovering petroleum products from industrial sewage of petroleum
reprocessing plants] Sokrashchenie poter' nefteproduktov s promysh-
lennymi stochnymi vodami neftepererabatyvaiushchikh zavodov. Baku,
Azerbaidzhanskoe gos.isd-vo nefi i nauchno-tekhn.lit-ry, 1957. 135 p.

(MIRA 10:11)

(Petroleum products) (Petroleum industry--By-products)

T N D y h K o u , A . M .

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11(4)

Baku. Azerbaidzhan'skiy nauchno-issledovatel'skiy institut nefte-
pererabatyvayushchey promyshlennosti Iseni V. V. Ruybyanava.

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Chimichev, A.M. Levashina, Candidate of Chemical Sciences, I.M. Ordzhinskiy, Candidate
of Chemical Sciences, M.M. Melik-Zade, Candidate of Chemical
Sciences.

PURPOSE: This collection of articles is intended for chemical
engineers, technicians, and refiners concerned with advanced
methods of petroleum conversion.

CONTENTS: The collection presents an analysis of different
types of crudes extracted in Azerbaidzhan and of the products
recovered from these crudes through petroleum conversion of crudes
processes. The desulfurization, desalt, and demulsifying of crudes
is described and the suitability of these crudes for the electric
recycling of diesel fuels is discussed. Results of catalytic
cracking performed over a filter of gasoline produced by two-
stage catalytic cracking are analyzed. Attrition in a hyper-
flow system are analyzed. Various types of oil additives and
the production of different types of oil and of carbon black
are outlined. References accompany individual articles.

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Preparation of lacquer-drying oil from the extract of oil pro-
duction. Sbor.trud.Az NII NP no.4:140-147 '59. (MIRA 15:5)
(Drying oils)

SAFONOV, V.A.; INDYUKOV, N.M.; LOGINOVA, S.N.; SHEVTSOV, I.S.

Improved technology for processing oil-bearing sands and methods
for the utilization of petroleum products obtained in this process.
Sbor.trud.Az NII NP no.4:272-290 '59. (MIRA 15:5)
(Oil sands)

INDYUKOV, N.M.; KARANOV, M.F.

Catalytic cracking of thermally cracked kerosene. khim.i
tekh.topl.i masl 5 no.5:8-11 My '60. (MIRA 13:7)

1. Azerbaydzhanskiy nauchno-issledovatel'skiy institut
neftepererabatyvayushchiy promyshlennosti im. V.V.
Kuybysheva.

(Kerosene) (Cracking process) (Gasoline)

S/065/61/000/002/002/008
E030/E235

AUTHORS: Indyukov, N. M. and Loginova, S. N.
TITLE: Catalytic Refining of Thermally Cracked Kerosine
PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1961, No. 2,
pp. 16-20

TEXT: Laboratory and pilot plant experiments have been prepared and conducted on refining thermally cracked kerosine over an aluminosilicate catalyst. The intention was to increase the output of diesel fuels, and previous refining treatments, such as hydrostabilization, acid washing, and hydrogenation, have not proved satisfactory. The kerosine raw material obtained at the Zavod imeni V. Sturua (Plant imeni V. Sturua) was as follows:

Specific gravity d_4^{20}	0.8504
Composition, °C:	
I.B.P.	174
10% Vol. boiling up to	203
50% " " " "	237
70% " " " "	250

Card 1/6

S/065/61/000/002/002/008
E030/E235

Catalytic Refining of Thermally Cracked Kerosine

Composition, °C:	
90% Vol. boiling up to	274
F.B.P. " " "	300
Molecular weight	176.8
Kinematic Viscosity at 20°C (c.s)	2.82
Gum existent (mg/100 gm)	84.0
% Wt. Sulphur	0.18
Acid value (mg KOH/100 gm)	2.31
Iodine number	58.5
Sulphonatables, % volume	40.0
Hydrocarbon type analysis:	
1. Unsaturates and aromatics	42.8
2. Naphthenes	26.5
3. Paraffins	30.7
4. Octane number	56.8
5. Cetane number	40.2

In both plants the catalyst had an activity value of 32, and the temperature range investigated was 240-330°C. It was found that

Card 2/6

S/065/61/000/002/002/008
E030/E235

Catalytic Refining of Thermally Cracked Kerosine
the catalyst disintegrated at temperatures much below 240°C.
Results obtained in the laboratory are as follows:

Table 1

Table 1.

Таблица 1

Показатели	Temperature Температура, °C						
	330	280	240	330	300	280	260
	Количество водяного пара, % вес. (% wt.)						
	5,0	4,4	5,8	без подачи пара without addition of water			
Получено, % вес.: Output, % weight							
катализатора catalyst	90,5	91,7	93,0	90,0	91,8	92,0	92,3
полимеров polymers	4,78	3,75	3,03	3,88	3,77	3,77	3,36
газа gas	1,35	1,1	0,7	1,47	0,05	0,70	0,6
кокса coke	1,83	2,13	1,8	3,20	2,38	2,06	2,30
потерь loss	1,50	1,32	1,47	1,45	1,40	1,47	1,44

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S/065/61/000/002/002/008
E030/E235

Catalytic Refining of Thermally Cracked Kerosine

Table 1

Всего . . . Total	100,0	100,0	100,0	100,0	100,0	100,0	100,0
Properties of Catalyst Свойства катализатора							
Specific gravity Удельный вес d_{40}^{20}	0,8399	0,8392	0,8413	0,8393	0,8479	0,8464	0,8467
Фракционный состав, °C:							
п. к. F.B.P.	93,0	111	119	100	100	93	98
10% объемн. выкипает до . . . vol. boiling up to . . .	139	179	185	165	170	174	185
50%	223	236	232	223	230	226	232
90%	273	271	270	268	279	274	277
п. к. F.B.P.	300	293	298	297	306	310	303
Вязкость кинематическая при 20°, сст	1,71	2,18	2,21	—	—	—	—
Подное число по Маргнесу	11,1	10,0	11,7	6,6	6,9	6,5	5,5
Сульфуремость, % объемн.	35,2	32,8	27,2	36,8	38,8	37,8	40,0
Фактические смолы, мг на 100 г продукта	60,0	50,3	57,2	50,0	41,7	40,4	46,0
Цетановое число (Cetane number)	39,5	41,0	40,8	—	40,5	40,8	—
Углеродородный состав, % вес:							
непредельные + ароматические	39,8	36,16	29,52	42,72	40,17	38,78	35,1
нафтеновые	30,13	40,57	43,22	30,07	26,29	33,12	36,23
парафиновые	24,27	23,27	27,26	26,31	33,54	28,10	28,67
Gum content (mg/100 am)							


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S/065/61/000/002/002/008
E030/E235

Catalytic Refining of Thermally Cracked Kerosine

The space velocity was 0.7 kg/kg hr for temperatures of 330 and 300°, and 1 kg/kg hr at all others. Although the highest output is obtained at 240°C in the presence of added water vapour, the acid value is high (11.7), and lower values are obtained (5.5 to 6.9) without added water. Optimum working conditions are thus 260-300°C, and 0.7 to 1 kg/kg hr space velocity. Pilot plant results (with fluid bed, and 10 to 12% water added) are also tabulated. The mass balance at the optimum conditions of 260-300°C and 1 kg/kg hr are as follows:

Catalyst	91-92
Polymer	2.8-2.9
Gas	0.8-1.0
Coke	2.9-3.0
Loss	1.20-2.3



The catalyzate would satisfy diesel oil specification BTY 586-56 (VTU 586-56), except for flash point, but removal of the 12% fraction boiling up to 165°C overcomes this as shown:

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8/065/61/000/002/002/008
E030/E235

Catalytic Refining of Thermally Cracked Kerosine

	Catalyzate	Diesel Oil Specif.
Specific Gravity	0.8420	VTU 586-56
Composition °C:		
I.B.P.	165	-
10%	185	not less than 140
50%	225	not greater than 250
90%	279	" " " 300 ✓
F.B.P.	299	-
Iodine number	4.40	-
Cetane number	40.0	40.0
1. Viscosity at 20°C (cs)	2.22	≥ 1.7
2. Acid value, mg KOH/100gm	4.2	≤ 5.0
Pour point (°C)	-41	not greater than -35
3. Flash point(closed) °C	36.0	not less than 35

There are 3 tables, 1 figure and 6 Soviet references.

ASSOCIATION: INKhP AN AzSSR

Card 6/6

INDYUKOV, N.M.; GONCHAROVA, M.A.; SIDORCHUK, I.I.; GASANOVA, R.I.

Catalytic reforming of low-octane gasolines with medium content of naphthenic hydrocarbons. Khim.i tekhn.topl.i masel 6 no.9:15-19 S '61. (MIRA 14:10)

1. Institut neftekhimicheskikh protsessov AN AzerSSR.
(Gasoline) (Hydrocarbons)

ALIYEV, Vagab Safarovich; INDYUKOV, Nikolay Mikhaylovich; YEFIMOVA,
Sof'ya Abramovna; GONCHAROVA, Mariya Alekseyevna; SIDORCHUK,
Igor' Ivanovich; NAGIYEV, M.F., akad., red.; DOLGOV, V.,
red. izd-va

[Catalytic cracking of petroleum crudes with the use of fluidized
bed techniques] Issledovaniia v oblasti kataliticheskogo krekinga
neftianogo syr'ia s primeneniem tekhniki kipiashchego sloia.
Baku, Izd-vo Akad. nauk Azerbaidzhanskoi SSR, 1962. 310 p.

(MIRA 15:5)

(Cracking process) (Fluidization)

ALIYEV, V.S.; INDYUKOV, N.M.; KABANOVA, M.F.; SAPONOV, V.A.; SHEVTSOV, I.S.

Pyrolysis of oil distillates and residues in the fluidized
bed of a heat carrier. Khim. i tekhn. topl. i masel 7 no.10:
27-31 0*62 (MIRA 17*7)

1. Institut neftekhimicheskikh protsessov AN AzerSSR.

S/065/63/000/001/001/005
E075/E436

AUTHORS: Indyukov, N.M., Daniyelyan, M.K.

TITLE: Hydrocarbons of the naphthalene series in naphtha and gas oils from catalytic cracking

PERIODICAL: Khimiya i tekhnologiya topliv i masel, no.1, 1963, 16-19

TEXT: Alkyl naphthalenes were isolated from naphtha and light and heavy gas oils from catalytic cracking to satisfy the increasing industrial demand for phthalic anhydride. The naphthalene hydrocarbons were isolated from aromatic portions of the oils separated on silica gel and distilled to produce 10°C cuts. Alkyl naphthalenes in the cuts were separated via picrate formation. The naphtha fractions contained naphthalene (0.59% of the original naphtha), β -methylnaphthalene (3.66%), 1,6-dimethylnaphthalene (2.15%). The light gas oil fractions contained dimethylnaphthalenes (2.05%) and trimethylnaphthalenes (2.43%). The heavy gas oil fractions contained dimethylnaphthalenes (3.3%), trimethylnaphthalenes (1.38%) and tetramethylnaphthalenes (1.12%).

There are 5 tables.

ASSOCIATION: INKhP AN Azerb SSR (INKhP AS Azerb SSR)

Card 1/1

INDYUKOV, N.M.; SIDORCHUK, I.I.; MARDANOV, N.A., red.

[Low-molecular aromatic hydrocarbons from petroleum
crudes] Nizkomolekuliarnye aromatische uglevodorody
iz neftianogo syr'ia. Baku, Azerneshr, 1964. 169 p.
(MIRA 18:2)

L 33255-65 EWT(m)/EET(0) PT-4

8/0316/84/10:005/0011/0014

ACCESSION NR: AP6006517

1. N. M. Mardzhanov, G. M. ...
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removed, the octane value remained unchanged.

ANALYSIS

The 120-130°C fraction was extracted with benzene from the 120-130°C fraction and the extract was analyzed by extraction of aromatic compounds from the extract with benzene. The extract was analyzed by gas chromatography. The extract contained a number of compounds, including a number of aromatic compounds.

"APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000618610014-4

ASSOCIATION: none

SUBMITTED: 00

FILE: 00

SUB CODE: FP

NO REF: 00

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APPROVED FOR RELEASE: 08/10/2001

CIA-RDP86-00513R000618610014-4"

47388-65 EMI(m)/EPF(e)/T Py-4 WE

ACCESSION NR: AP5006820

8/0085/65/000/002/0006/0013

AUTHOR: Aliyev, V. S.; Indukov, N. M.; Goncharova, M. A.; Yefimova, S. A.;
Gasarova, R. I.; Kozeyko, T. A.

TITLE: High-octane gasoline from reforming and selective adsorption of normal
paraffin hydrocarbons

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 2, 1965, 41-3

TOPIC TAGS: octane, gasoline, paraffin, hydrocarbon, petroleum cracking

ABSTRACT: A study was made of the process of obtaining high octane gasoline from

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L 4 378-05

ACCESSION NR: AP5006820

B95/130 aviation gasoline is obtained without the addition of high octane compo-

weight = 100% by weight of the initial reaction. By

1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

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ATTENTION: INCLP Az83f

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INDYUKOV, N.M.; DANIYELYAN, M.K.

Study of naphthalene from petroleum raw material. Khim. prom. 41
no.2:22-24 F '65. (MIRA 18:4)

ALIYEV, V.S.; INDYUKOV, N.M.; GONCHAROVA, M.A.; YEFIMOVA, S.A.; GASANOVA, R.I.;
KLEYKO, T.A.

Reforming of high-octane gasolines and the selective adsorption of
normal paraffin hydrocarbons. Khim. i tekhn. topl. i masel 10
no.2:6-9 F '65. (MIRA 18:8)

1. Institut neftekhimicheskikh protsessov AN AzerSSR.

INDYUKOV, N. N.

L6737

S/120/62/000/004/002/047
E032/E514

746730
AUTHORS: Strel'tsov, N.S., Fedotov, G.M., Rozhdestvenskiy, B.V.,
Gustov, G.K., Gamulina, V.Ye., Nifontov, Yu.L.,
Indyukov, N.N., Bozgachev, Ye.A. and Kuryshchev, V.S.

TITLE: The construction of the electromagnet for the 7 GeV
proton synchrotron

PERIODICAL: Priory i tekhnika eksperimenta, no.4, 1962, 15-19

TEXT: A description is given (including sectional drawings) of the electromagnet. The electromagnet incorporates four types of magnetic sections, namely: 1) bending sections for radial focusing (total number 42), 2) bending sections for radial defocusing (total number 53), 3) bending sections for radial defocusing, located at points of beam extraction (total number 3), and 4) quadrupole lenses with zero field on the orbit (total number 14). The magnetic circuits of all the sections are assembled from insulated steel sheets (the chemical composition of the steel is similar to E2 (E2) steel). The hyperbolic pole faces were made on a special milling machine and have a curvature of 2780 cm in the horizontal plane. The system used to retain the

Card 1/3

The construction of the ...

S/120/62/000/004/002/047
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steel sheets in position was such that the deformation of the hyperbolic face was $\pm(0.1-0.15)$ mm after two days and ± 0.03 mm after two months. The design of the neutral pole faces of the bending magnets was such that their deformation and the electrodynamic stresses did not exceed 0.05 mm. The main winding consists of 48 turns connected in series and arranged in ten sections. The winding is made of rectangular copper piping which was manufactured by the Leningrad factory "Krasnyy Vyborzhets". In addition to the main winding, there are three compensating coils which are used to correct the magnetic field. Water cooling is used and the insulation is sufficient to withstand 2 kV. The extracting magnets, which are used to extract the beam into the experimental area, consist of a main coil (8 turns; copper piping) and two compensating coils (8 turns each; copper piping). Finally, the quadrupole lenses carry an 18 turn main winding and an 18 turn auxiliary winding, both in the form of copper piping. In order to facilitate the positioning of all the electromagnets, each of them carried special markers which were used to relate their position to the appropriate points

Card 2/3

The construction of the ...

5/120/62/000/004/002/047
E032/E514

on the basic geodesic grid. Special mechanisms were used to adjust the magnets. They can be adjusted by ± 2 cm in the vertical plane to an accuracy of 0.001 cm and by ± 0.5 cm in the radial direction to an accuracy of 0.002 cm. The former adjustment is made with the aid of special wedges and the latter by a screw-driven mechanism. The azimuthal adjustment is made by simple wedge devices and can be achieved to an accuracy of ± 0.05 cm. There are 6 figures.

ASSOCIATIONS: Nauchno-issledovatel'skiy institut elektro-fizicheskoy apparatury GKAE (Scientific Research Institute of Electrophysical Apparatus GKAE) and Institut teoreticheskoy i eksperimental'noy fiziki GKAE (Institute of Theoretical and Experimental Physics GKAE)

SUBMITTED: April 6, 1962

Card 3/3

STREL'TSOV, N.S.; FEDOTOV, G.M.; ROZHDESTVENSKIY, B.V.; GUSTOV, G.K.;
GAMULINA, V.Ye.; NIFONTOV, Yu.L.; INDIUKOV, N.M.; BEZGACHEV,
Ye.A.; KURIYEV, V.S.

Design of the electromagnet of the 7 bev. proton synchrotron.
Prib. i tekhn. eksp. 7 no.4:15-19 J1-Ag '62.

(MIRA 16:4)

1. Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury
Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR
i Institut teoreticheskoy i eksperimental'noy fiziki Gosudarst-
vennogo komiteta po ispol'zovaniyu atomnoy energii SSSR.
(Electromagnets) (Synchrotron)

INDUTNYY, Ye.V., inzh.

Over-all mechanization of the removal and reprocessing of metal chips. Mashinostroenie no.4:31-33 J1-Ag '63. (MIRA 17:2)

1. Khar'kovskoye otdeleniye Tsentral'nogo konstruktorskogo byuro Gosplana UkrSSR.

INDZHIBELI K., insh.

Over-all automatization of transportation is a problem ripe for
solution. Rech.transp. 19 no.9:7-9 8 '60. (MIRA 13:9)
(Inland water transportation)
(Automatic control)

IEDZHIBELI, K.

Preparing for the transition to the seven-hour day. NTO 2 no.7:45
Jl '60. (MIRA 13:7)

1. Zamestitel' predsedatelya soveta pervichnoy organizatsii
Nauchno-tehnicheskogo obshchestva "Giprorechtransa," Moskva.
(Moscow--Hours of work)

INDZHIBELI, K., inzh.

Central radio dispatcher system for the merchant fleet in river
transportation. Rech. transp. 19 no.3/17-20 Mr '60. (MIRA 14:5)
(Radio in navigation) (Inland water transportation)

SUKHOV, Dmitriy Konstantinovich; POSPELOV, A.A., retsenzent; DMITRIYEVSKIY, M.V., retsenzent; INDZHIBELI, K.Kh., redaktor; KAN, P.M., redaktor izdatel'stva; SALAZKOV, N.P., tekhnicheskii redaktor

[Manual for inspectors of communication lines] Uchebnoe posobie
dlia lineinogo nadzornshchika svyazi. Moskva, Izd-vo "Rechnoi
transport," 1956. 231 p. (MLRA 10:2)
(Telephone lines) (Telegraph lines)

INDZHIRELI, K.Kh., insh.

Radio relay communication lines in river transportation. Rech.
transp. 18 no.4:16-17 Ap '59. (MIRA 13:1)
(Inland water transportation) (Radio in navigation)

INDZHEV, E.

"Cooperating the cotton industry in Bulgaria."

p.9 (Leka Promishlenost) Vol. 6, no. 11, 1957. Sofia, Bulgaria

SO: Monthly Index of ^{EE}East European Accessions (EEAI) LC, Vol. 7, no. 5 May 1958

S/137/60/000/011/002/043
A006/A001

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 11, p. 16,
25270

AUTHORS: Mikadze, I.S., Chachanidze, O.V., Indzhid, G.A., Lazarashvili, I.G.

TITLE: On the Use of a Mathematical Computer for Controlling the Electrical
Conditions of Ferroalloy Arc Furnaces

PERIODICAL: Dokl. Nauchno-proizv. konferentsii mashinostroiteley i priborostroi-
teley, Leningrad, Sudpromgiz, 1959, pp. 123 - 128

TEXT: To improve the process in ferroalloy furnaces and to bring about
its comprehensive automation, an analog computer is being developed to control
the electrical conditions of ferroalloy arc furnaces by root-mean-square current
values and mean values of useful power. The computer is intended for the joint
operation with the existing regulator. During melting of the charge the maximum
permissible power supply is controlled. During refining, only the programmed tem-
perature of the molten metal has to be maintained. The following methods of con-

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S/137/60/000/011/002/043
A006/A001

On the Use of a Mathematical Computer to Controlling the Electrical Conditions of Ferroalloy Arc Furnaces

trolling the electric conditions of the furnace are possible when using the computer: by the mean value of the square of current; the summary real power; the summary useful power; the useful power of each phase.

V.B.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

5 (1), 5 (2)

AUTHORS:

Alchudzhan, A. A., Indzhikyan, M. A., SOV/76-33-5-4/33
(Yerevan)

TITLE:

On the Catalytic Properties of the System Pt - Au (O
kataliticheskikh svoystvakh sistemy Pt - Au)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 5,
pp 983-987 (USSR)

ABSTRACT:

The data by publications on the system mentioned in the title (Refs 4-11) are discussed, and it is referred to the X-ray investigations by K. A. Lapteva, T. I. Borisova, and M. G. Slin'ko (Ref 11). According to these investigations, platinum-gold alloys with 5.04 and 9.5 atm% Au are one-phase, and alloys with 20, 30, 39, 59, 63, and 87 atm% Au are two-phase. The measuring apparatus for the catalytic hydration process is described in reference 2. 0.01 g Pt or Au were used in the investigation of catalytic activity, and quantities with a Pt content of 0.01 g were used in the case of Au and Pt catalysts. The ratio platinum:gold in the catalysts was varied from 99:1 to 1:3. Hydrogen and benzene in the ratio of 1:4 throughout of 1.5 l H/h. Figure 1 shows the temporal variation

On the Catalytic Properties of the System Pt - Au

SOV/76-33-5-4/33

of the Pt and Pt-Au catalysts investigated. Hence it appears that the activity decreases in the beginning but then remains constant. Figure 2 shows the variation of the activity of Pt and Pt-Au catalysts depending on the gold content. The activity increases with small gold additions, reaches a maximum with 5 % Au ($2\frac{1}{2}$ times the activity of pure Pt), and then decreases continuously. A catalyst with 75 % Au is completely inactive. It might be that the activity increase observed with an addition of up to 5 % Au is related to the increase of the active surface which covers the actual activity decrease. Otherwise it would be inexplicable why a catalyst with only 25 % Pt is completely inactive. The authors had already earlier assumed (Refs 1 and 2) that there is a relation between the magnetic properties of the catalysts investigated by them, and the catalytic activity of the catalysts. They point out that according to data from publications (Ref 6) the paramagnetism of the Pt-Au alloy with 68-70 % Au content equals zero. If gold is added, the amount of holes in the d-zone of the alloy and together with it the catalytic activity must decrease. The authors found similar relations in connection with the

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On the Catalytic Properties of the System Pt - Au

SOV/76-33-5-4/33

other catalysts investigated by them. The fact that Pt-Au catalysts react differently on oxydation of SO_2 (Ref 13) can be thus explained that platinum as well as gold are active towards SO_2 which is not true for the hydrogenation of benzene. The solubility of hydrogen in the system varies if gold is added and, there seems to be a direct relation between this solubility and the catalytic activity. There are 2 figures and 16 references, 9 of which are Soviet.

ASSOCIATION: Yerevanskiy politekhnicheskii institut im. K. Marksa
(Yerevan Polytechnic Institute imeni K. Marx)

SUBMITTED: October 12, 1957

Card 3/3

5 (4)

AUTHORS:

Alchudzhan, A. A., Indzhikyan, M. A.

SOV/76-33-7-4/40

TITLE:

On the Catalytic Properties of the System Pd + Pt

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 7, pp 1467 - 1472
(USSR)

ABSTRACT:

It was already found (Refs 1-5) that there is a certain relationship between the catalytic and magnetic properties of catalysts (C). In the present paper, the authors investigated the catalytic activity of mixed Pd + Pt (C) with respect to benzene hydrogenation, and compared the experimental results with data available in publications on the magnetic properties of these systems. The activity of the (C) was determined from the rate of benzene (I) hydrogenation to cyclohexane (II). The apparatus used is similar to that of (Refs 15 and 16). The catalysts were prepared by the method (Ref 17). The ratio of Pd to Pt was modified within the range 1 : 10 - 10 : 1. The experimental results (Table 1) indicate that with increasing Pt content the activity of the (C) attains a minimum and then rises again. A small content of Pt in Pd or of Pd in Pt causes mutual activation of Pd and Pt, respectively. It was observed that the catalytic activity at the Pd - Pt ratios investigated never drops

Card 1/2

On the Catalytic Properties of the System Pd + Pt

SOV/76-33-7-4/40

to zero. This is ascribed to the fact that the magnetic susceptibility does not attain zero either at none of the above ratios. The minimum catalytic activity, determined at the ratios of Pd: Pt = 1:1 - 1:2, coincides with the minimum value of magnetic susceptibility of the alloy. Hydrogen, silver, and copper cause Pd to act in a similar way upon the magnetic and catalytic properties, i. e. the paramagnetism (P) of Pd as well as its catalytic activity with respect to (I)-hydrogenation are eliminated. Additions of Pt to Pd, however, do not destroy (as mentioned above) (P) and the catalytic activity. Additions of gold destroy (P) in Pd, but do not effect the catalytic activity. This is ascribed to excitation and splitting of the electron spin by the reaction heat. The catalytic activity is thus maintained. There are 3 figures, 2 tables, and 19 references, 10 of which are Soviet.

ASSOCIATION: Yerevanskiy politekhnicheskiy institut im. K. Marksa (Yerevan Polytechnic Institute imeni K. Marx)

SUBMITTED: July 31, 1957
Card 2/2

Indzhikyan, M.G., Surmalyan, S.A., Babayan, A.T.
INDZHIKYAN, M.G.; SURMANYAN, S.A.; BABAYAN, A.T.

Investigations in the field of quaternary ammonium compounds.
Report No.8: Stability of bonds of certain organic radicals in
quaternary ammonium compounds. Izv. AN Arm. SSR Ser. khim. nauk
10 no.3:213-221 '57. (MIRA 10:12)

1. Khimicheskiy institut AN ArmSSR.
(Ammonium compounds) (Chemical bonds)

INDZHIKYAN, M.G.; BABAYAN, A.T.

Quaternary ammonium compounds. Report No.4: Stevens rearrangement
of ammonium compounds. Izv. AN Arm. SSR ser. khim. nauk 10 no.6:
411-419 '57. (MIRA 11:6)

1. Khimicheskiy institut AN ArmSSR.
(Ammonium compounds) (Rearrangements (Chemistry))

INDZHIKYAN, M. G., Cand Chem Sci -- (diss) "Reactions of
alkylation ^{by means} ~~with the aid~~ of quaternary ammonium compounds."

Mos, 1958. 14 pp (Acad Sci USSR, Inst of Elementoorganic Com-
pounds), 100 copies (KL, 18-58, 96)

BABAYAN, A.T.; INDZHIKYAN, M.G.; SURMANYAN, S.A.

Comparative stability of bonds between the allyl and benzyl radicals and nitrogen. Dokl AN Arm. SSR 26 no.4:235-240 '58.
(MIRA 11:5)

- 1.Chlen-korrespondent AN Armyanskoy SSR (for Indzhikyan).
- 2.Institut organicheskoy khimii Akademii nauk Armyanskoy SSR.

(Allyl) (Benzyl) (Nitrogen)

5(4), 5(3)

AUTHORS:

Babayan, A. T., Indzhikyan, M. G., Neyman, M. B.

SOV/62-59-1-33/38

TITLE:

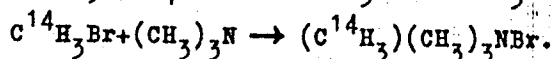
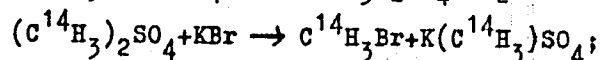
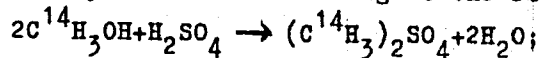
On the Equivalence of Nitrogen Bonds in Tetramethyl-Ammonium Bromide (O ravnotsennosti svyazey azota v bromistom tetrametilammonii)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 1, pp 174 - 174 (USSR)

ABSTRACT:

According to modern concepts the 4 nitrogen bonds in $(\text{CH}_3)_4\text{NBr}$ formed by sp^3 bastardization are equivalent. In the present paper the authors checked these data. $(\text{C}^{14}\text{H}_3)(\text{CH}_3)_3\text{NBr}$ was synthesized according to the following scheme:



The last process took place at -80° . Furthermore, the product obtained was decomposed in liquid ammonia solution. The

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On the Equivalence of Nitrogen Bonds in Tetramethyl-
Ammonium Bromide

SOV/62-59-1-33/38

following reaction took place in the solution:
 $(\text{CH}_3)_4\text{NBr} + 2\text{K} + \text{NH}_3 \rightarrow \text{CH}_4 + (\text{CH}_3)_3\text{N} + \text{KBr} + \text{KNH}_2$. The results of
the investigation are summarized in the table. It may be
seen from it that methane separated during the decomposition
of the ternary salt possesses 23% of the activity, whereas
trimethyl amine possesses 78%. Thus, the experiments carried
out at -80° confirmed the conclusions of the paper (Ref 1)
and the generally assumed idea of the equivalence of the
bonds of quadrivalent nitrogen. There are 1 table and 2
references, 1 of which is Soviet.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute
of Chemical Physics of the Academy of Sciences, USSR)
Institut organicheskoy khimii Akademii nauk ArmSSR (Institute
of Organic Chemistry of the Academy of Sciences, Armenian SSR)

SUBMITTED: June 20, 1958

Card 2/2

BABAYAN, A.T.; INDZHIKYAN, M.G.

Alkylation in an aqueous medium in the presence of quaternary ammonium salts. Dokl. AN Arm. SSR 28 no.2:67-71 '59.

(MIRA 12:6)

1. Institut organicheskoy khimii AN ArmSSR. 2. Uchen-korrespondent AN ArmSSR (for Babayan).

(Ammonium salts) (Alkylation)

BABAYAN, A.T.; MARTIROSYAN, G.T.; VARTANYAN, N.G.; INDZHIKIAN, M.G.

Amines and ammonium compounds. Part 12: Synthesis of some
amines. Zhur.ob.khim. 30 no.7:2263-2267 J1 '60.
(MIRA 13:7)

1. Institut organicheskoy khimii Akademii nauk Armyanskoy SSR.
(Amines)

S/020/60/133/006/027/031XX.
B016/B054

AUTHORS: Babayan, A. T., Indzhikyan, M. G., and Bagdasaryan, G. B.

TITLE: Formation of Conjugate Diene Amines During the Interaction of Mono- and Diquaternary Salts of 1,4-Diamines With Aqueous Alkali

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 6, pp. 1334-1336

TEXT: The authors report on their investigations of the reactions of mono- and diquaternary salts of 1,4-di-(dimethyl-amino)-2-methyl butene-2. They attempted to find out whether the double 1,4-cleavage of the di-ammonium salt takes place simultaneously or by steps. The authors proved that the protonization of the hydrogen atoms of C₄ is suppressed by the conjugation of the methyl group. Thus, the order of the mentioned cleavage reactions is predetermined according to scheme (I). ✓

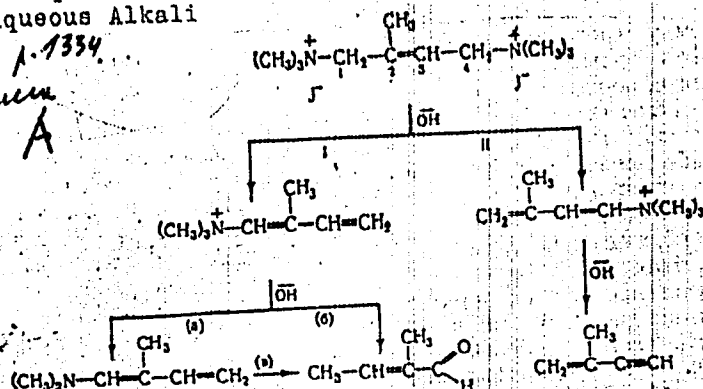
Card 1/6.

Formation of Conjugate Diene Amines During
the Interaction of Mono- and Diquaternary
Salts of 1,4-Diamines With Aqueous Alkali

8133,6 1.1334

Scheme
A

S/020/60/133/006/027/031XX
B016/B054



This statement by the authors is based on the results of their experiments. From the products of the reaction of the iodine salt of 1,4-di-(trimethyl-ammonium)-2-methyl butene-2 with aqueous alkali, they isolated an aldehyde (corresponding to the dimer of methyl crotonic aldehyde), as well as a high-boiling amine product (apparently a condensation product of methyl crotonic aldehyde with 1-dimethyl-amino-(methyl)-butadiene). The same

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Formation of Conjugate Diene Amines During
the Interaction of Mono- and Diquaternary
Salts of 1,4-Diamines With Aqueous Alkali

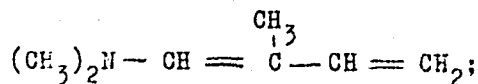
S/020/60/133/006/027/031XX:
B016/B054

result was obtained in the transition from a mixture of quaternary ammonium salt with alkali to an ammonium base. The authors did not succeed (contrary to a statement made by Ya. M. Slobodin, Ref. 5) in detecting even traces of 2-methyl vinyl acetylene in the reaction products. This fact speaks in favor of scheme I. The authors further cleft the moniodo methyl derivative of 1,4-di-(dimethyl-amino)-2-methyl butene-2 by aqueous alkali at a lower temperature (120°C). Here, the same products were formed as in the cleavage of the diquaternary salt. Subsequently, the authors cleft - in vacuo and at 105-107°C - the hydroxide they had produced by treating the moniodo methylate of 1,4-di-(dimethyl-amino)-2-methyl butene-2 with an aqueous suspension of the silver oxide. Here, they isolated 1-dimethyl-amino-2-methyl butadiene-1,3 (yield about 40% of the theoretical one). The properties of this substance are described. From the fact that this substance forms dimethyl amine, as well as a corresponding derivative of α -methyl crotonic aldehyde, with the solutions of semicarbazide, 2,4-dinitro-phenyl hydrazine, and hydroxylamine, the authors conclude that the methyl in the diene amine takes a β -position with respect to the amino group:

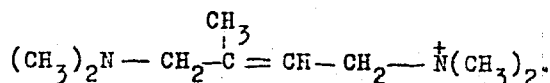
Card 3/6

Formation of Conjugate Diene Amines During
the Interaction of Mono- and Diquaternary
Salts of 1,4-Diamines With Aqueous Alkali

S/020/60/133/006/027/031XX
B016/B054



consequently, the position of the methyl in the monoiodo methylate used is:



On the basis of these results, the authors assume that the second cleavage step of diiodo methylate (step (a) of scheme I) requires a higher temperature (140-145°C) than was hitherto applied. To settle this question, they studied the behavior of two other diquaternary ammonium salts (I) and (II) towards aqueous alkali. It was proved that the alkaline cleavage of (I) already occurred at the temperature of the boiling water bath (see scheme B). The similar cleavage of (II) is illustrated by scheme C. Thus, the authors proved that the diquaternary ammonium salts (I) and (II) are cleft by alkali according to scheme I, i.e., exclusively via step (a) (see scheme A). There are 5 Soviet references.

Card 4/6

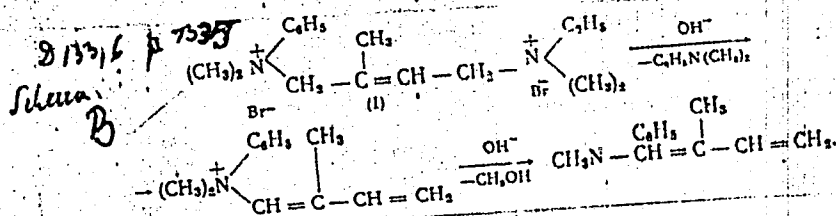
Formation of Conjugate Diene Amines During
the Interaction of Mono- and Diquaternary
Salts of 1,4-Diamines With Aqueous Alkali

S/020/60/133/006/027/031XX.
B016/B054

ASSOCIATION: Institut organicheskoy khimii Akademii nauk ArmSSSR
(Institute of Organic Chemistry of the Academy of Sciences
Armyanskaya SSR)

PRESENTED: April 12, 1960, by I. L. Knunyants, Academician

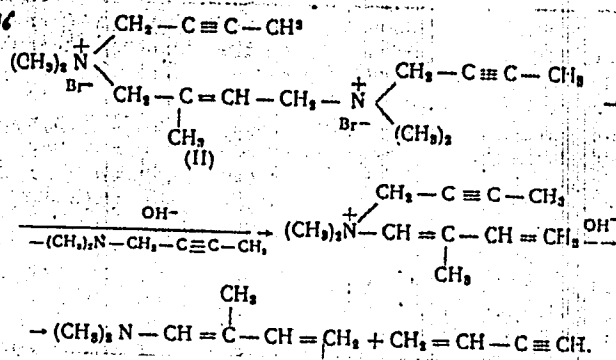
SUBMITTED: April 10, 1960



Card 5/6

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B016/B054

D, B3, 6 / 1336
Silene
C.



BABAYAN, A.T.; INDEHIKYAN, M.G.; AZIYAN, T.A.

Alkylation in an aqueous medium by means of quaternary
ammonium salts. Dokl. AN Arm. SSR 31 no. 2:79-86 '60.
(MIRA 13:11)

1. Institut organicheskoy khimii Akademii nauk Armyanskoy
SSR. 2. Chlen-korrespondent AN Armyanskoy SSR. (for Babayan).
(Alkylation) (Ammonium salts)

BABAYAN, A.T.; GEGELYAN, Zh.G.; INDZHIKYAN, M.G.

Amines and ammonium compounds. Part 14: Alkaline cleavage of ammonium salts containing an alkoxymethyl group in the δ -position of the β, γ -unsaturated radical. Zhur. ob. khim. 31 no. 2:611-616 F '61. (MIRA 14:2)

1. Institut organicheskoy khimii AN ArmSSR.
(Ammonium compounds)

BABAYAN, A.T.; INDZHIKYAN, M.G.; GRIGORYAN, A.A.; MINASYAN, R.V.

Rearrangement-cleavage of quaternary ammonium salts containing
 α -allenyl and α -acetylenyl systems. Izv. AN Arm. SSR.
Khim.nauki 15 no.6:567-569 1962. (MIRA 16:2)
(Ammonium compounds) (Unsaturated compounds)
(Rearrangements (Chemistry))

BABAYAN, A.T.; INDZHIKYAN, M.G.; BAGDASARYAN, G.B.

New reaction of the rearrangement and splitting of quaternary ammonium salts. Dokl. AN Arm. SSR 34 no.2:75-82 '62. (MIRA 15:4)

1. Institut organicheskoy khimii AN Armyanskoy SSR. 2. Chlen-korrespondent AN Armyanskoy SSR (for Babayan).
(Ammonium salts)

BABAYAN, A.T.; INDZHIKYAN, M.G.; GRIGORYAN, A.A.; MINASYAN, R.V.

Amines and ammonium compounds. Part 17: Alkaline cleavage of ammonium salts containing an electron-acceptor substituent in the δ -position in the β, γ -unsaturated group. Zhur.ob.khim; 33 no.6:1766-1773 Je '63. (MIRA 16:7)

1. Institut organicheskoy khimii AN Armyanskoy SSR.
(Ammonium compounds) (Alkalies) (Unsaturated compounds)

BABAYAN, A.T.; INDZHIKYAN, M.G.; AYVAZOVA, R.A.

Amines and ammonium compounds. Part 18: Stevens rearrangement of quaternary ammonium compounds. Zhur'ob.khim. 33 no.6:1773-1778 (MIRA 16:7)
Je '63.

1. Institut organicheskoy khimii AN Armyanskoy SSR.
(Ammonium compounds) (Rearrangement (Chemistry))

BABAYAN, A.T.; INDZHIKYAN, M.G.; GEGELIAN, Zh.G.

Amines and ammonium compounds. Part 19. Zhur.ob.khim. 33 no.7:
2177-2181 J1 '63. (MIRA 16:8)

(Amines) (Ammonium compounds)

BABAYAN, A.T.; INDZHIKYAN, M.O.; GEGELIAN, Zh.G.

Amines and ammonium compounds. Part 10: Alkali cleavage of
ammonium salts containing an electron-acceptor group in the
 δ -position of the β,γ -unsaturated group. Zhur.ob.khim. 33
no.7:2181-2184 J1 63. (MIRA 16:8)
(Ammonium compounds) (Alkalies)

BABAYAN, A.T.; INDZHIKYAN, M.G.; DAVTYAN, N.M.

Alkaline cleavage of 1.2-diquaternary ammonium salts. Dokl. AN Arm.
SSR 35 no.4:173-176 '62. (MIRA 17:1)

1. Institut organicheskoy khimii AN Armyanskoy SSR. 2. Chlen-korrespondent AN Armyanskoy SSR (for Babayan).

BABAYAN, A.T.; INDZHIKYAN, M.G.; BAGDASARYAN, G.B.

Amines and ammonium compounds. Part 21: Rearrangement-cleavage of ammonium salts containing α , β - and $\beta\gamma$ -unsaturated groups. Zhur.ob.khim. 34 no. 2:411-415 F '64. (MIRA 17:3)

1. Institut organicheskoy khimii AN Armyanskoy SSR.

BABAYAN, A.T.; INDZHIKYAN, M.G.; BAGDASARYAN, G.B.; DAVTYAN, N.M.

Amines and ammonium compounds. Part 22: Rearrangement-cleavage of ammonium salts containing α -chloroethyl and allyl-type groups taking place under the effect of aqueous alkali. Zhur.ob.khim. 34 no.2:416-421 F '64. (MIRA 17:3)

1. Institut organicheskoy khimii AN ArmSSR.

BABAYAN, A.T.; INDZHIKYAN, M.G.; TUMANYAN, L.R.

Rearrangement-cleavage of quaternary ammonium salts containing two allyl-type groups. Dokl. AN Arm. SSR 36 no.2:95-99 '64. (MIRA 17:3)

1. Institut organicheskoy khimii AN Armyanskoy SSR. 2. Chlen-korrespondent AN Armyanskoy SSR (for Babayan).

BABAYAN, A.T.; MARTIROSYAN, G.T.; IEDZHIKYAN, M.G.; DAVTYAN, N.M.
MINASYAN, R.B.

Chemism of the mineralization process of organically combined
chlorine in the alkaline cleavage of quaternary ammonium salts.
Dokl. AN Arm. SSR 39 no. 2:99-106 '64. (MIRA 17:9)

1. Chlen-korrespondent AN ArmSSR (for Babayan).

BABAYAN, A.T.; INDZHIKYAN, M.G.; GEQELIAN, Zh.G.

Amines and ammonium compounds. Part 25: Alkaline decomposition of quaternary ammonium salts containing a tertiary butyl substituent in the δ -position of the β -unsaturated group. Izv. AN Arm. SSR. Khim. nauki 18 no.1:25-31 '65. (MIRA 18:5)

1. Institut organicheskoy khimii AN Armyanskoy SSR.

GABAYAN, A.T.; INDENIKYAN, M.G.; BAGDASARYAN, G.B.

Amines and ammonium compounds. Part 29: Alkaline decomposition
piperazinium salts containing the allyl-type group. Izv. AN
Arm.SSR, Khim.nauki 18 no.4: 347-350 '65.

(MIRA 18:12)

1. Institut organicheskoy khimii AN Armyanskoy SSR. Submitted
March 21, 1964.

PABAYAN, A.T., INDZHIYAN, M.G.; GIGHIYAN, Zh.G.

Amines and ammonium compounds. Part 30: Alkaline decomposition of quaternary ammonium salts containing a methoxy substituent. Izv. AN Arm. SSR. Khim.nauki 18 no.4:351-359 '65.

(MIRA 18:12)

1. Institut organicheskoy khimii AN Armyanskoy SSR. Submitted July 21, 1964.

BABAYAN, A.T.; INDZHIKYAN, M.G.; GRIGORYAN, A.A.; MINASYAN, R.B.;
OVAKIMYAN, M.Zh.

Amines and ammonium compounds. Part 26: Alkaline decomposition
of 1,4-diammonium salts with a butyn-2-ylene central radical
and side radicals of the allyl type. Izv. AN Arm. SSR. Khim.
nauki 18 no.2:166-174 '65. (MIRA 18:11)

1. Institut organicheskoy khimii AN ArmSSR. Submitted April
24, 1964.

INDZHIKIAN, Ye.A.

Experimental study of the torsion of steel prismatic rods with cruciform profiles. Izv.AN Arm.SSR.Ser.FMET nauk 5 no.1:3-8 '52.

(MIRA 9:7)

1.Institut stroitel'nykh materialov i soedusheniy Akademii nauk Armyanskoy SSR.

(Strength of materials)